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D3407-5

Job Sheet 199922



DAS  
21  
9-99

Part No: D3407-5

Job Qty: 30 pcs

Part Name: Ring



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 9/4/19

Job Tracking No:

Created By: Marie Lajeunesse

Due Date: 10/1/19

Description:

Type: Stock

Note: DWG D3407 REV.G IPP Rev:A New Issue 05-11-22 JLM IPP Rev:B Now on Waterjet 08-05-14 JLM Verified  
By:DD IPP Rev:C 08-08-12 revE as per dwg (ecn 08-507) DD verified by:EC

Ship Via:

## Bill of Materials

## Job Routing

| Op<br>No | Operation           | Qty       | Start Date | Due<br>Date | Standard     |            | Workcenter/Supplier   |              | Sign-off    |
|----------|---------------------|-----------|------------|-------------|--------------|------------|-----------------------|--------------|-------------|
|          |                     |           |            |             | Setup<br>Hrs | Run<br>Hrs | Workcenter / Supplier | Lead<br>Time |             |
| 100      | Waterjet - Flow - 1 | 30<br>pcs |            | 10/1/19     | 0.17         | 2.74       | Waterjet - Flow       |              | DC 19/09/26 |
|          |                     |           |            |             |              |            | Waterjet - Omax       |              |             |
| 110      | QC 2                | 30<br>pcs |            | 10/1/19     | 0.00         | 0.00       | QC 2 - 1              |              |             |
|          |                     |           |            |             |              |            | QC 2 - 12             |              |             |
|          |                     |           |            |             |              |            | QC 2 - 14             |              |             |
|          |                     |           |            |             |              |            | QC 2 - 17             |              |             |
|          |                     |           |            |             |              |            | QC 2 - 19             |              |             |
|          |                     |           |            |             |              |            | QC 2 - 2              |              |             |
|          |                     |           |            |             |              |            | QC 2 - 20             |              |             |
|          |                     |           |            |             |              |            | QC 2 - 22             |              |             |
|          |                     |           |            |             |              |            | QC 2 - 23             |              |             |
|          |                     |           |            |             |              |            | QC 2 - 25             |              |             |
|          |                     |           |            |             |              |            | QC 2 - 32             |              |             |
|          |                     |           |            |             |              |            | QC 2 - 33             |              |             |
|          |                     |           |            |             |              |            | QC 2 - 35             |              |             |
|          |                     |           |            |             |              |            | QC 2 - 39             |              |             |
|          |                     |           |            |             |              |            | QC 2 - 4              |              |             |
|          |                     |           |            |             |              |            | QC 2 - 40             |              |             |
|          |                     |           |            |             |              |            | QC 2 - 44             |              |             |
|          |                     |           |            |             |              |            | QC 2 - 45             |              |             |
|          |                     |           |            |             |              |            | QC 2 - 48             |              | DC 19/09/26 |
|          |                     |           |            |             |              |            | QC 2 - 49             |              |             |
|          |                     |           |            |             |              |            | QC 2 - 50             |              |             |
|          |                     |           |            |             |              |            | QC 2 - 51             |              |             |
|          |                     |           |            |             |              |            | QC 2 - 52             |              |             |
|          |                     |           |            |             |              |            | QC 2 - 57             |              |             |
|          |                     |           |            |             |              |            | QC 2 - 62             |              |             |
|          |                     |           |            |             |              |            | QC 2 - 63             |              |             |
|          |                     |           |            |             |              |            | QC 2 - 8              |              |             |
|          |                     |           |            |             |              |            | QC 2 - 66             |              |             |

PRIORITY

|     |                              |        |         |           |                              |                                                                                       |
|-----|------------------------------|--------|---------|-----------|------------------------------|---------------------------------------------------------------------------------------|
|     |                              |        |         |           | QC 2 - 64                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 65                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 5                     |                                                                                       |
|     |                              |        |         |           | QC 2 - 71                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 73                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 69                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 69                    |                                                                                       |
| 115 | Conventional Lathe - 1 - B4B | 30 pcs | 10/1/19 | 0.00 1.98 | Conventional Lathe - 1 - B4B |    |
|     |                              |        |         |           | Conventional Lathe - 2 - B4B |                                                                                       |
| 117 | QC 2                         | 30 pcs | 10/1/19 | 0.00 0.00 | QC 2 - 1                     |                                                                                       |
|     |                              |        |         |           | QC 2 - 12                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 14                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 17                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 19                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 2                     |                                                                                       |
|     |                              |        |         |           | QC 2 - 20                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 22                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 23                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 25                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 32                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 33                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 35                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 39                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 4                     |                                                                                       |
|     |                              |        |         |           | QC 2 - 40                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 44                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 45                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 48                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 49                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 50                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 51                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 52                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 57                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 62                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 63                    |  |
|     |                              |        |         |           | QC 2 - 8                     |                                                                                       |
|     |                              |        |         |           | QC 2 - 66                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 64                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 65                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 5                     |                                                                                       |
|     |                              |        |         |           | QC 2 - 71                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 73                    |                                                                                       |
|     |                              |        |         |           | QC 2 - 69                    |                                                                                       |
| 120 | QC 8                         | 30 pcs | 10/1/19 | 0.00 0.00 | QC 8 - 12                    |  |
|     |                              |        |         |           | QC 8 - 14                    |                                                                                       |
|     |                              |        |         |           | QC 8 - 17                    |                                                                                       |
|     |                              |        |         |           | QC 8 - 20                    |                                                                                       |
|     |                              |        |         |           | QC 8 - 25                    |                                                                                       |
|     |                              |        |         |           | QC 8 - 3                     |                                                                                       |
|     |                              |        |         |           | QC 8 - 32                    |                                                                                       |
|     |                              |        |         |           | QC 8 - 33                    |                                                                                       |
|     |                              |        |         |           | QC 8 - 35                    |                                                                                       |
|     |                              |        |         |           | QC 8 - 39                    |                                                                                       |
|     |                              |        |         |           | QC 8 - 4                     |                                                                                       |
|     |                              |        |         |           | QC 8 - 44                    |                                                                                       |
|     |                              |        |         |           | QC 8 - 45                    |                                                                                       |
|     |                              |        |         |           | QC 8 - 49                    |                                                                                       |
|     |                              |        |         |           | QC 8 - 58                    |                                                                                       |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              |                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|--------|---------|--------------|------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         | QC 8 - 8     |                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         | QC 8 - 9     |                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         | QC 8 - 68    |                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         | QC 8 - 67    |                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         | QC 8 - 1 (A) |                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         | QC 8 - 47    |                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         | QC 8 - 40    |                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         | QC 8 - 52    |                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         | QC 8 - 23    |                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         | QC 8 - 57    |                        |
| 130                                                                                                                                                                                                                                                                                                                                                                                                                                             | Packaging 3-1 - Stock - B4B | 30 pcs | 10/1/19 | 0.00 0.00    | Packaging 3 - 1 - B4B  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 2 - B4B  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 3 - B4B  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 4 - B4B  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 5 - B4B  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 6 - B4B  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 7 - B4B  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 8 - B4B  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 9 - B4B  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 10 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 11 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 12 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 13 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 14 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 15 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 16 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 17 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 18 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 19 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 20 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 21 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 22 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 23 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 24 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 25 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 26 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 27 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 28 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 29 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 30 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 31 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 32 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 33 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 34 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 35 - B4B |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | Packaging 3 - 36 - B4B |
| 140                                                                                                                                                                                                                                                                                                                                                                                                                                             | QC 21 - SA                  | 30 pcs | 10/1/19 | 0.00 0.00    | QC 21 - SA - 21        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | QC 21 - SA - 70        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |        |         |              | QC 21 - SA - 53        |
| Part Op 100 - 1-Cut as per Dwg D3407 Dwg Rev: _____ Prog Rev: _____ 2-Break edges on manual lathe Dwg D3407<br>Descriptions: (175rpm)<br>110 - (QC2- Inspect parts off machine FAI/FAIB)<br>115 - (Manufacture as per dwg)<br>117 - (QC2- Inspect parts off machine FAI/FAIB)<br>120 - (QC8- Inspect parts - second check)<br>130 - (Identify as per dwg & Stock Location: <i>W400</i> )<br>140 - (QC21- Final Inspection - Work Order Release) |                             |        |         |              |                        |

## Job BOM

| Part / Item             | Component Name                    | Quantity            | Operation               | Container |
|-------------------------|-----------------------------------|---------------------|-------------------------|-----------|
| M17-4-H900-B0.250X4.000 | 17-4 SS H900 Bar 0.250" X 04.000" | 7.9800 ft (.266 ea) | 100-Waterjet - Flow - 1 | 5207609   |

## Job Allocations

| Operation               | Component Part          | Required | Inventory | Allocated |
|-------------------------|-------------------------|----------|-----------|-----------|
| 100-Waterjet - Flow - 1 | M17-4-H900-B0.250X4.000 | 8        | 24        | 0         |

## Part Specifications

| Spec No | Description | Target/Tolerance                                    | Limits         | Type  | Special Comments |
|---------|-------------|-----------------------------------------------------|----------------|-------|------------------|
| 1       | Tow Ring    | 0.250inches $\pm$ 0.010                             | 0.260<br>0.240 | 0,252 | Varies JWS       |
| 2       | Tow Ring    | 3.000inches $\pm$ 0.030                             | 3.030<br>2.970 | 3,005 | "                |
| 3       | Tow Ring    | 2.050inches + 0.012<br>- 0.001                      | 2.062<br>2.049 | 2,049 | "                |
| 4       | Tow Ring    | 0.750inches $\pm$ 0.030<br>0,06 $\pm$ 0,030 = 0,06" | 0.780<br>0.720 | 0,760 | "                |

0,01 / 0,02 " = 0,015

Plex 9/4/19 2:32 PM Dart.lajeunesse.marie



Entered: \_\_\_\_\_ Date: \_\_\_\_\_

## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

Route update only

NCR No. \_\_\_\_\_

Job: \_\_\_\_\_

Part No. \_\_\_\_\_

### DISPOSITION

Rework ☐ ☐ ☐  
Scrap ☐ ☐ ☐  
Use-as-is ☐ ☐ ☐

### DEPARTMENT/PROCESS

Skid-tube ☐ ☐ ☐  
Machining ☐ ☐ ☐  
Large Fab ☐ ☐ ☐

Cross tube ☐ ☐ ☐  
Small Fab ☐ ☐ ☐  
Finishing ☐ ☐ ☐

Eng. (Non-AW) ☐ ☐ ☐  
Prod. Eng. Coord. ☐ ☐ ☐  
Rec/Store/Packaging ☐ ☐ ☐

Engineering ☐ ☐ ☐  
Water Jet ☐ ☐ ☐  
Supplier ☐ ☐ ☐  
Quality ☐ ☐ ☐

Date: \_\_\_\_\_

Sequence #: \_\_\_\_\_

QTY Affected: \_\_\_\_\_

MRB (QSI042)

### Description Work Order Deviation

### Disposition

Completed By \_\_\_\_\_

Lead hand / Supervisor \_\_\_\_\_

QC / QA Coordinator \_\_\_\_\_

### Root Cause

Operator ☐ ☐ ☐  
Manufacturing Process ☐ ☐ ☐  
Equip/Tooling ☐ ☐ ☐  
Handling/Preservation ☐ ☐ ☐  
Material ☐ ☐ ☐  
Product Improvement ☐ ☐ ☐  
Process Improvement ☐ ☐ ☐  
Human Factors ☐ ☐ ☐

### FAULT CATEGORY

| Pressure/Forced                                       | Contamination                                            | Power Loss/Surge                            | Positioned Wrong                           |
|-------------------------------------------------------|----------------------------------------------------------|---------------------------------------------|--------------------------------------------|
| <input type="checkbox"/>                              | <input type="checkbox"/>                                 | <input type="checkbox"/>                    | <input type="checkbox"/>                   |
| Bending <input type="checkbox"/>                      | Misaligned/off center <input type="checkbox"/>           | Folio/Program <input type="checkbox"/>      | Outside Tolerance <input type="checkbox"/> |
| Crushing <input type="checkbox"/>                     | BOM/Route <input type="checkbox"/>                       | Grain Direction <input type="checkbox"/>    | Drawing <input type="checkbox"/>           |
| Cracks <input type="checkbox"/>                       | Broken/Damage/Defect <input type="checkbox"/>            | Weld <input type="checkbox"/>               | Finish <input type="checkbox"/>            |
| Crimp/Kink/Ripple/Wave/Twist <input type="checkbox"/> | Incomplete/Unclear Instructions <input type="checkbox"/> | Wrong Stock Pulled <input type="checkbox"/> | Part Lost/Missing <input type="checkbox"/> |
| Marks/Chatter <input type="checkbox"/>                | Drill Holes <input type="checkbox"/>                     | Out of Sequence <input type="checkbox"/>    | Misread <input type="checkbox"/>           |
| Mislabeled <input type="checkbox"/>                   | Fit/Function <input type="checkbox"/>                    | Off-set/Set-up <input type="checkbox"/>     |                                            |

Other/Details: \_\_\_\_\_